

Remarks

Reconsideration of this Patent Application is respectfully requested, particularly as herein amended.

The Office Action of September 12, 2008, objects to the drawings under 37 C.F.R. §1.83(a) because structures disclosed from line 26 to line 29 of page 4 of the specification are not considered to be properly shown in the drawing, and under 37 C.F.R. §1.84(p)(5) because the reference number 24 disclosed at line 14 of page 4 of the specification has not been shown in the drawing.

In reply, and responsive to the requirements of 37 C.F.R. §1.121(d), one "Replacement Sheet" of drawings and one "New Sheet" of drawings have been enclosed with this Reply. Figure 1 has been amended to show the body 24 of the condiment mill, which forms the receptacle for receiving a condiment to be ground. Figure 2 has been added to show an elevational view of the structures shown in Figure 1 to better illustrate the thrust stop 25 and the cooperating circlip 26. Entry of the Replacement Sheet of drawings and the New Sheet of drawings is respectfully requested to overcome the stated objections to the drawings.

The Office Action next objects to the specification because the brief description of the drawings required by 37 C.F.R. §1.74 has not been provided. Although not specifically required by the Office Action, a substitute specification has

nevertheless been submitted for this Patent Application which includes section headings and which makes grammatical corrections resulting from translation of the original specification from French into English when steps were taken to enter the U.S. national stage of the International Application on which the present U.S. Patent Application is based. As part of this, the substitute specification includes a brief description of the originally presented Figure 1 and the newly presented Figure 2, at page 2 of the substitute specification, overcoming the stated objection to the disclosure. Corresponding amendments have also been made to the substitute specification to incorporate the reference numerals 25 (to identify the thrust stop) and 26 (to identify the circlip).

A marked-up copy of the original specification showing the changes which have been made in the substitute specification has also been enclosed, on separate pages, in accordance with the requirements of 37 C.F.R. §1.125(c). The substitute specification includes no new matter, and entry of the substitute specification is therefore respectfully requested in accordance with 37 C.F.R. §1.125(b).

An amended Abstract has also been submitted for this Patent Application. The amended Abstract has been reproduced on a separate sheet enclosed with this Reply, in accordance with the requirements of 37 C.F.R. §1.72(b), and entry of the amended Abstract is therefore respectfully requested.

The Office Action next objects to claims 3 to 13 under 37 C.F.R. §1.75(c) because such claims are considered to be in improper multiple dependent form. For this reason, claims 3 to 13 have not yet been examined on their merits.

Applicant's claims 1 to 13 have been canceled and replaced with claims 14 to 31, which have been drafted to better comply with the requirements of 35 U.S.C. §112, second paragraph, and none of which have been presented in multiple dependent form. It is submitted that this operates to overcome the objection to claims 3 to 13 under 37 C.F.R. §1.75(c) and to otherwise place the claims in condition for allowance. In the event that any additional issues are identified which may require further consideration, the Examiner is invited to telephone the undersigned to discuss and resolve such issues.

Finally, the Office Action rejects claims 1 and 2 (the only claims which have been examined on their merits) under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,785,264 (Yang). Claim 1 is also rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0117566 (Cheng).

As previously indicated, original claims 1 to 13 have been canceled and replaced with new claims 14 to 31, which have been drafted to better comply with the requirements of 35 U.S.C. §112, second paragraph, and 37 C.F.R. §1.75. It is submitted that this also serves to overcome the stated rejections of claims

under 35 U.S.C. §102(b) and 35 U.S.C. §102(e).

Yang discloses a pepper grinder having a grind unit 2 that generally includes a grind body 21 which is received by a shaft 23 and which is surrounded by a cooperating grind base unit 20. An adjust ring 25 is received by the shaft 23 and engages the grind body 21. It is to be noted, however, that the grind base unit 20 is "firmly fixed" to the base unit 1 which receives it (Col. 3, lines 38 and 39), and that the adjust ring 25 is rotated "to move the grind body 21 up or down for adjusting the aperture between the grind base unit 20 and the grind body 21" (Col. 4, lines 3 to 6).

Applicant's claim 14 recites a drive element having a thimble and a thimble support, in addition to the cooperating wheel. The grind base unit 20 of Yang does not include such structure. Applicant's claim 14 also recites that "rotational movement of the adjustment ring causes translational movement of the thimble support". Rotational movement of the adjust ring 25 of Yang causes translational movement of the grind body 21, and not the grind base unit 20, which is fixed in translation. Applicant's claim 14 additionally recites "a reinforcement located on an outer face of the thimble support, wherein the reinforcement cooperates with the adjustment stop to limit movement of the adjustment ring", structure which is absent from the pepper grinder of Yang.

Cheng discloses a pepper mill having a grinding unit

that generally includes a fixed member 22 having a first grinding surface 221 which receives a grinder 26 having a second grinding surface 261 for cooperating with the first grinding surface 221 of the fixed member 22. The grinder 26 is connected to a disk 27, which in turn cooperates with a rotatable end collar 28. Similar to Yang, the member 22 is said to be "fixed" to the surrounding structures of the disclosed pepper mill (Paragraph [0017], lines 1 to 3), and the end collar 28 is rotated to "push the disk 271 (sic) together with the grinder 26 upward [to narrow the] gap between the first grinding surface 221 and the second grinding surface 261" (Paragraph [0019], lines 1 to 6).


Once again, applicant's claim 14 recites a drive element having a thimble and a thimble support, in addition to the cooperating wheel. The member 22 of Cheng does not include such structure. Applicant's claim 14 also recites that "rotational movement of the adjustment ring causes translational movement of the thimble support". Rotational movement of the end collar 28 of Cheng (and not the top member 25 of Cheng, as is suggested in the Office Action) causes translational movement of the disk 27 and the grinder 26 coupled with the disk 27, and not the member 22, which is fixed in translation. Applicant's claim 14 additionally recites "a reinforcement located on an outer face of the thimble support, wherein the reinforcement cooperates with the adjustment stop to limit movement of the adjustment ring", structure which is absent from the pepper mill of Cheng.

Accordingly, it is submitted that applicant's claims are not anticipated, either by the U.S. Patent to Yang or by the U.S. Patent Application Publication of Cheng, and that applicant's claims are in condition for allowance as presented.

As a final matter, applicant further encloses an "Information Disclosure Statement" which is being submitted to inform the Patent Office of additional information for consideration pursuant to 37 C.F.R. §1.56. Due consideration of the enclosed Information Disclosure Statement is respectfully requested.

Corresponding action is earnestly solicited.

Respectfully submitted,



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BACKGROUND OF THE INVENTION

The present invention relates to a continuously adjustable ~~continuous adjustment~~ device for ~~[[the]]~~ grinding ~~[[of]]~~ condiments such as salt, pepper or any other spice, in a mill.

Devices of this ~~[[This]]~~ type ~~are of device is already~~ known in the ~~[[prior]]~~ art, and provide for adjustment of ~~[[where]]~~ the grinding action of the mill ~~is adjusted~~ by modifying the position of part of the grinding mechanism of the condiment mill, allowing step changes in the degree of fineness of the grinding.

In this type of ~~prior art~~ device, ~~when adjusting the grinding action,~~ the operator comes ~~[[is]]~~ in contact with the condiment being ground when the grinding action of the mill is adjusted. This leads to ~~means that there is~~ a risk of the product becoming ~~contaminated~~.

~~In~~ contaminated. In addition, it is not possible to adapt ~~[[with]]~~ this type of adjustment device to ~~adapt the adjustment to~~ electrically operated condiment mills because the adjustment device ~~[[,]]~~ ~~since it~~ has to be positioned where the condiment exits the mill ~~condiments come out~~.

It should also be emphasized that the grinding adjustment

device is dependent on the body of the condiment mill. As a result, ~~This means that~~ if the adjustment device deteriorates, the entire [[whole]] mill has to be changed.

It is an object of the present invention to solve these various drawbacks by providing an adjustment device for ~~the grinding of~~ a condiment [[in the]] mill that offers continuous adjustment of the grinding of the condiment, that avoids contact between the user and the product to be ground, and that enables the fineness of the grinding to be adjusted.

SUMMARY OF THE INVENTION

In accordance with ~~To this end,~~ the subject of the present invention, [[is]] a device is provided for adjusting the grinding of a condiment in a mill. To this end, ~~in which~~ the drive element of the mill includes ~~comprises~~ a thimble, a thimble support, a wheel and a fixing ring annulus for attachment ~~fixing~~ to the mill. Rotational [[,]] ~~the device being characterized in that the rotational~~ movement of an adjustment ring fitted with an adjustment stop independent of the [[said]] device results in a translational movement of the [[said]] thimble support.

A clearer understanding of the present invention will be gained from the description given below, with reference to the following attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 ~~in which the figure~~ shows an exploded view of the grinding adjustment device before being ~~[[it is]]~~ fitted onto ~~[[on to]]~~ the drive pin of the condiment mill.

Figure 2 is an elevational view of the assembly shown in Figure 1.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Figures 1 and 2 show a ~~[[The]]~~ device 1 which includes ~~according to the invention consists of~~ an adjustment ring 3 having an adjustment stop 5, a thimble 6, a thimble support 4, an attachment ring 11, and a drive pin 7 ~~[[,]]~~ surrounded by a wheel 9 ~~[[,]] a drive pin 7~~.

The top part of the device 1 includes the ~~according to the invention consists of an~~ adjustment ring 3, which is operated by turning the ring ~~[[it]]~~. The top of the ~~[[this]]~~ adjustment ring 3 is provided with an adjustment stop 5. The adjustment stop 5 includes ~~[[with]]~~ an indexing ~~bar 12~~.

~~This indexing~~ bar 12, which can be used to set the grinding to certain, predefined well-defined sizes established by a series of notches 16 associated with the thimble support 4, as will be described more fully below. However, the grinder can also be

adjusted continuously sensitively, that is, all the way around the adjustment ring 3, and not only in the notches 16 provided for such ~~[[this]]~~ purposes.

The bottom of the adjustment ring 3 has fixing clips 13 for attaching the adjustment ring 3 to the attachment ring 11. The ~~[[These]]~~ clips 13 will preferably take ~~[[be in]]~~ the form of plastic teeth.

A screw thread 14 is provided on ~~[[On]]~~ the inside of the adjustment ring 3, for engaging ~~is a screw thread 14 by which it is fixed to~~ the thimble support 4.

The 4. To this end, a screw thread 17 is provided on the outside of the thimble support 4, for engagement with the screw thread 14 of the adjustment ring 3. The screw thread 17 is interrupted at regular intervals to avoid obstruction of the device 1 in the event that some of the condiment is received between the adjustment ring 3 and the thimble support 4.

The bar 12 of the adjustment stop 5 indexes the adjustment ring 3 with respect to the thimble support 4, in this way ~~[[thus]]~~ enabling the degree of fineness of the grind to be ~~adjusted~~.

The adjusted. The thimble 6 is fixed to the thimble support 4, as will be described more fully below, defining specific relative positions in rotation.

The thimble support 4 is provided with a reinforcement 15 which makes contact with the adjustment stop 5 of the adjustment ring 3 at the forward and reverse limits. The reinforcement 15 ~~[[It]]~~ is level with the notches 16, which receive ~~[[take]]~~ the indexing bar 12 and which are located on the outer top face of the thimble support 4.

~~The 4.~~ The illustrated thimble support 4 includes ~~also~~ possesses five notches 16 for receiving ~~designed to take~~ the indexing bar 12, offering ~~[[. It]] therefore offers~~ five indexed adjustment positions. Intermediate ~~[[,]] but the~~ intermediate positions are still possible, providing ~~so there~~ is a great variety of ~~size of~~ grind sizes.

~~On the outside of the thimble support 4 is a screw thread 17 allowing it to be engaged with the adjustment ring 3. This screw thread 17 is interrupted at regular intervals so that there is no obstruction to the mechanism 1 according to the invention if some of the condiment gets into it.~~

Screw columns 18 are provided on ~~[[On]]~~ the underside of the thimble support 4 ~~are screw columns 18,~~ which enable ~~enabling~~ the thimble 6 to be held ~~non-rotatably~~ in the attachment ring 11, without rotation, creating a sliding ~~connection~~.

~~This annulus 2 has a purely decorative function. It may be ornamented in various ways.~~

The connection. The attachment ring 11 ~~[[that]]~~ fits underneath the thimble support 4, and is provided with two housings 19 for receiving ~~to take the~~ fixing columns 20 of the thimble support 4. The ~~[[These]]~~ housings 19 also prevent the thimble support 4 from rotating. The inside top part of the attachment ring 11 is provided with a protective collar 21 to prevent the ~~[[stop]]~~ condiment from being thrown into the mechanism.

The drive pin 7 of the condiment mill ~~[[,]] the top end of which has holding springs 8 and a wheel 9,~~ is then placed in the assembly formed by the attachment ring 11, the thimble 6, the thimble support 4 and the adjustment ring 3. The top end of the drive pin 7 includes a holding spring 8 and the wheel 9. The wheel 9 is ~~[[thus]]~~ clamped in the thimble support 4 and the thimble 6. The spring 8 can be replaced by a plastic spacer ~~distance piece~~ for "salt" movements, to avoid any risk of corrosion.

The corrosion. The opposing end of the drive pin 7 has a knurling 22 which enables the drive pin 7 ~~to enable it~~ to be held in the assembly ring ~~23.~~

~~The 23.~~ The assembly ring 23 sits beneath ~~underneath~~ the attachment ring 11, and ~~[[. It]]~~ is force-fitted onto the drive pin 7, where it grips the knurling 22.

The outer body 24 of the condiment mill ~~reservoir 24~~ is mounted on the attachment ring 11, forming a reservoir for the condiment. An annulus 2 can further be provided which has a purely decorative function, and can be ornamented in various ways.

The adjustment ring 3 screws onto the thimble support 4. ~~The In a fixing movement, its~~ spring clips 13 snap onto the attachment ring ~~44.~~

~~The 11, fixing the two structures together.~~ The thimble 6 ~~[[thus]]~~ fits between the adjustment ring 3 and the thimble support 4.

Turning the adjustment ring 3 ~~therefore~~ results in ~~[[a]]~~ vertical movement of the thimble support ~~4.~~

~~This 4.~~ Vertical movement of the thimble support 4 will be limited both by the adjustment stop 5 and by the reinforcement 15. The thimble support 4 can ~~[[It may]]~~ have a maximum amplitude of 3 mm, thus varying the fineness of the grind.

By contrast, the vertical position of the wheel 9 is fixed. The wheel 9 is held in the vertical direction by a ~~[[the]]~~ thrust stop 25, combined with a circlip 26 positioned beneath the thrust stop 25 ~~which has circlips underneath it~~. The thrust stop 25 can ~~[[may]]~~ be fixed either to the attachment ring 11 ~~fixing annulus~~ or directly to the body 24 of the condiment mill ~~(which is not shown)~~.

Because ~~[[Since]]~~ the thimble support 4 cannot turn, the thimble support 4 ~~[[it]]~~ cannot be pulled around by the rotary movement of the wheel 9. This ensures that the adjustment setting is not accidentally altered.

The mill adjustment device of ~~according to~~ the present invention modifies the position between the wheel 9 and the thimble 6 by moving the thimble, and not by moving the wheel, as was ~~[[is]]~~ the usual ~~practice~~.

~~This practice.~~ Such an adjustment device offers continuous grinding. What is more, such an adjustment device ~~[[it]]~~ is independent of the operation of the rest of the mill. As a result, the mill adjustment device of the present invention ~~[[and]]~~ is ~~therefore~~ readily adaptable to different types of mills, whether manual or electric, using ~~by means of an adapter~~.

~~The adjustment ring can be decorated to suit different models of condiment mills, which may be made of wood or stainless steel, for example.~~

~~In~~ an adapter. In addition, this type of grinding adjustment device can be adapted both to pepper mills and to instruments of different kinds, owing to its geometry and compact ~~design.~~

~~Moreover,~~ design. ~~Moreover,~~ the adjustment system of ~~according to~~ the present invention reduces manufacturing costs because it is comprised ~~consists~~ of few parts.

The adjustment ring can be decorated to suit different models of the condiment mill. The condiment mill can be made of wood or stainless steel, for example.

Although the present invention has been described with reference to particular embodiments, the present invention further ~~[[it]]~~ encompasses all technical equivalents of the means described.